

CLAIM AMENDMENTS

1. (Currently Amended) A substantially non-aqueous electrostatically dispensable disinfectant composition comprising an alcohol solvent component in combination with a glycol solute component, said combination having an initial conductivity, and further comprising a conductivity control component comprising at least one of a silicon oil, an essential oil, a fatty acid ester and combinations thereof in an amount sufficient to reduce said initial conductivity, and wherein all composition components of the disinfectant composition for electrostatic dispensing are at least one of soluble and miscible.
2. (Original) The composition of claim 1 wherein said alcohol component is selected from the group consisting of ethanol, isopropanol, benzyl alcohol and combinations thereof.
3. (Previously Presented) The composition of claim 1 wherein said conductivity control component is present in an amount effective to provide said composition a conductivity of about 0.01 microsiemens per centimeter to about 1.0 microsiemens per centimeter.
4. (Previously Presented) The composition of claim 3 wherein said conductivity control component is present at about 10 weight percent to about 90 weight percent of said composition.
5. (Original) The composition of claim 1 wherein said glycol component is selected from the group consisting of propylene glycol, dipropylene glycol, triethylene glycol and combinations thereof, said glycol component present at about 5 weight percent to about 80 weight percent of said composition.
6. (Original) The composition of claim 5 wherein said glycol component is triethylene glycol.

7. (Original) The composition of claim 6 wherein said alcohol component is selected from the group consisting of ethanol, isopropanol, benzyl alcohol and combinations thereof, said alcohol component present at about 10 weight percent to about 80 weight percent of said composition.

8. (Original) The composition of claim 7 wherein said alcohol component is ethanol, present in an amount sufficient to provide said composition a viscosity of about 0.1 centipoise to about 50 centipoise.

9. (Currently Amended) A substantially non-aqueous disinfectant composition, said composition comprising:

a glycol component present at about 5 weight percent to about 20 weight percent;

an alcohol component present at about 30 weight percent to about 70 weight percent;

a conductivity control component present at about 15 weight percent to about 50 weight percent, said control component present in an amount sufficient to provide said composition a conductivity from about 0.01 microsiemens per centimeter to about 1.0 microsiemens per centimeter; and

a balance of an aqueous component in an amount sufficient to form an azeotropic mixture with said alcohol component, wherein the electrostatically dispensable disinfectant composition is free of immiscible and insoluble topical composition particulates.

10. (Original) The composition of claim 9 wherein said glycol component is triethylene glycol and said alcohol component is ethanol, said composition having a viscosity of about 0.1 centipoise to about 50 centipoise.

11. (Original) The composition of claim 9 wherein said conductivity control component is selected from the group consisting of silicon oils, essential oils, fatty acid esters, aliphatic materials and combinations thereof.

12. (Original) The composition of claim 11 wherein said conductivity control component is an essential oil present in an amount sufficient to provide said composition a conductivity of about 0.1 microsiemens per centimeter to about 0.2 microsiemens per centimeter.

13. (Currently Amended) A system for electrostatic delivery of an antimicrobial material, said system comprising:

a disinfectant composition comprising a glycol component in combination with an alcohol component, said combination having an initial conductivity and a conductivity control component comprising at least one of a silicon oil, an essential oil, a fatty acid ester and combinations thereof, said conductivity control component present in an amount sufficient to reduce said initial conductivity of said combination; and

an electrostatic dispensing apparatus containing said disinfectant composition in a liquid reservoir, said apparatus further including an electrostatic charging element, a voltage source electrically connected to said element, and a dispenser providing said disinfectant composition in proximity to said element, said proximity sufficient to electrostatically charge said composition, wherein the electrostatic dispensing apparatus is at least one of an electrostatic wick and a vaporizing emitter, the electrostatic dispensing apparatus when subject to an electrical power source dispensing the disinfectant composition in a vapor and/or aerosol suspension form.

14. (Original) The system of claim 13 wherein said disinfectant composition is delivered in an amount sufficient to provide a 3-log reduction in airborne microbial levels.

15. (Original) The system of claim 13 wherein said glycol component is present at solute concentrations in said alcohol.

16. (Original) The system of claim 15 wherein said glycol is triethylene glycol and said composition is delivered at a rate of at least 0.1 grams per hour.

17. (Original) The system of claim 13 wherein said conductivity of said disinfectant compositions about 0.01 microsiemens per centimeter to about 1.0 microsiemens per centimeter.

18. (Currently Amended) A method of using a glycol disinfectant composition to reduce airborne microbial levels, said method comprising:

providing an electrostatically dispensable, substantially non-aqueous glycol disinfectant composition as defined in Claim 1 comprising an alcohol solvent component in combination with a glycol solute component, said combination having an initial conductivity, and further comprising a conductivity control component comprising at least one of a silicon oil, an essential oil, a fatty acid ester and combinations thereof in an amount sufficient to reduce said initial conductivity;

charging said glycol disinfectant composition with an apparatus comprising only-one electrode conductively connected to a voltage source; and

dispensing said charged glycol disinfectant composition in an amount and at a rate sufficient to effect a 3-log reduction in airborne microbial levels.

19. (Original) The method of claim 18 wherein said glycol composition comprises a glycol dissolved in an alcohol, said glycol selected from the group consisting of propylene glycol, dipropylene glycol, triethylene glycol and combinations thereof.

20. (Original) The method of claim 19 wherein said glycol is triethylene glycol, and said dispensation rate is greater than about 0.1 grams per hour.

21. (Original) The method of claim 18 wherein said glycol composition includes a conductivity control component present in an amount sufficient to provide said composition a conductivity of about 0.01 microsiemens per centimeter to about 1.0 microsiemens per centimeter.

22. (Currently Amended) A substantially non-aqueous disinfectant composition, said composition comprising:

triethylene glycol present at about 10 weight percent to about 15 weight percent of said composition, said glycol having an initial viscosity and an initial conductivity;

ethanol present at about 45 weight percent to about 60 weight percent of said composition, said ethanol present in an amount sufficient to dissolve said glycol, said amount further sufficient to reduce said initial viscosity; and

a fragrance component present at about 20 weight percent to about 40 weight percent of said composition, said fragrance present in an amount sufficient to reduce said initial conductivity,

said composition electrostatically dispensable, having a viscosity and a conductivity sufficiently reduced to deliver said composition at a rate of at least about 0.1 grams per hour to about 0.5 grams per hour, and wherein all composition components of the disinfectant composition for electrostatic dispensing are at least one of soluble and miscible.

23. (Original) The composition of claim 22 wherein said ethanol solvent and said fragrance component are present in amounts sufficient to deliver said composition at a rate of about 0.3 grams per hour.

24. (Original) The composition of claim 23 wherein said triethylene glycol is present at about 13 weight percent of said composition, said ethanol is present at about 56 weight percent of said composition, and said fragrance component is present at about 30 weight percent of said composition.

In re Appln. Of: Claudio L.K. Lins
Application No.: 09/766,730

25. (New) The method of claim 18, further comprising forming said charged glycol disinfectant composition into the aerosol and/or vapor within an air duct of a central air handling system of a building.

26. (New) The system of claim 13, wherein the electrostatic dispensing apparatus is supported within an air duct of a central air handling system of a building for release of vapor and/or aerosol.

27. (New) The system of claim 13, wherein the electrostatic dispensing apparatus does not include a spray nozzle for dispensing the disinfectant composition.